B1 Series

IP Camera

August, 2012 V0.2

User Manual

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1 Introduction

The IP Camera combines a high quality digital video camera with network connectivity and a powerful web server to bring clear video to your desktop from anywhere on your local network or over the Internet.

1.1 The package includes

- ✓ IP Camera * 1
- ✓ 5V Power Adapter * 1
- ✓ Stand of plastic * 1
- ✓ IP Camera Utility CD * 1
- ✓ Cable * 1

1.2 Function and Features

- ✓ MJPEG Compression format, there are VGA/QVGA video resolutions optional. User can changes some parameters according to their demands to satisfy his own visual prefer;
- ✓ Built-in Microphone, it allows user to monitor the sound on the site. User can also connect this equipment to the speaker, and it supports two-way intercom function;
- ✓ Built-in pan/tilt function, horizontally 270°and vertically 120°. Its outlook is smart, easy and convenient to install in many sites;
- ✓ By the built-in WEB SERVER, support a variety of webpage browser to watch video and parameter settings, the use of a port to transfer all of the data, is easy for the user to network settings
- ✓ Support 802.11b/g/n protocol, can build up wireless monitoring;
- ✓ Support UPNP, can automatically do port forwarding on router;
- ✓ Motion detection and alarm pin can be connected to external sensors to detect environmental situation;
- ✓ Alarming record can be stored by email, FTP server;
- ✓ Infrared LED for night vision covers 5m area, to realize 24 hours monitoring；
- ✓ Support 3 level authority and camera can upgrade remotely;
- ✓ Manufacture attaches a label at the bottom of each IP Camera, providing free DDNS. When IP Camera is connected to the internet, this DDNS can be used to visit the device；
- ✓ Manufacture provides free software, support Multi-view, Long time recording, video playback etc.

1.3 Technical Parameters

Item	Sub Item	Description
Image Capture	Sensor	CMOS sensor
	Total of pixel	300k
	Minimum illumination	IR on，0 Lux
	Lens	f=4.0 mm, F=2.0, Fixed Iris
Pan/Tilt	Pan Coverage	270°
	Tilt Coverage	120°
Assistant	Lighting	11pcs 850nm Infrared LEDs, 5m distance
	Lighting Control	Auto control
Video and Audio	Resolution	640*480(VGA)/320*240(QVGA)
	Compression	MJPEG
	Frame rate	30fps
	Bit rate	128kbps ~ 5Mbps
	Image Rotation	Mirror /Flip
	Audio Compression	ADPCM
Network	Basic Protocol	TCP/IP、UDP/IP、HTTP、SMTP、FTP、DHCP、DDNS、UPNP、NTP
	Other Protocol	802.11b/g/n
Other Features	Video control	support
	Dual way audio	support
	Motion Detection	support
	Triggered Actions	Email/FTP
	User Setting	Three levels
	Date/ Time Setting	support
	Upgrade	Upgrade from network
	DDNS	A free DDNS provided by manufacturer
Hardware Interface	Ethernet	10Base-T/100base-TX
	Audio In	Internal mic
	Audio Out	Audio Line-out interface x 1
Physical Index	Weight	245g
	Main body	100mm(L)*99mm(W)*118mm(H)
	Power	DC 5V
	Power consumption	<6W
	Operating temperature	-20℃~ 50℃
	Operating humidity	10% ~ 80% non-condensing
Software(PC Side)	OS Supported	Microsoft Windows XP/Windows 7 etc.
	Browser	Internet Explorer6.0 and Above or Compatible Browser, Firefox, Safari etc.
	Application Software	IPCMonitor.exe

2 Appearance and interface

2.1 B1 series for 520

Figure 1 Device Outlook

①---Wifi antenna;②---holder;③---Base;④—-Microphone;⑤—IR LED;⑥--- Lens;
⑦--- Photoresistor;

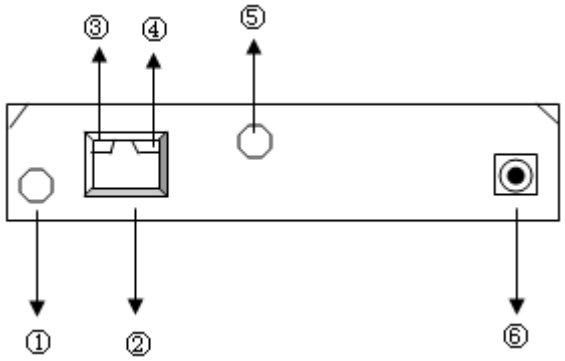

Figure 2 Connect port

①----Audio Output ②----RJ45 Port ③----Web status LED
④----Web power LED ⑤---WIFI Port ⑥---Power Port

RESET Button

Located in bottom cover, press it and hold on 10 seconds, the device restores factory

default and reboot.

2.2 B1 series for 521

Figure 3 521 Device Outlook

①---Wifi antenna; ②--- Photoresistor; ③---Lens; ④-- Holder; ⑤--- IR LED; ⑥--- Microphone; ⑦---Base;

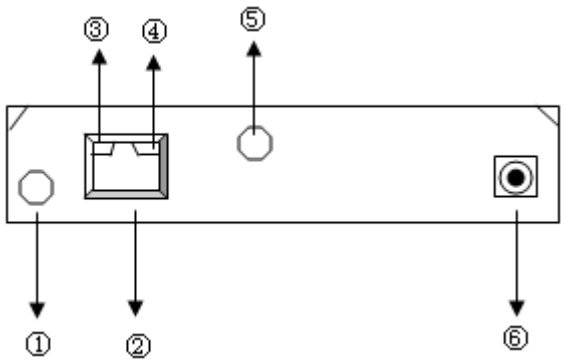

Figure 4 Connect port

①----Audio Output ②----RJ45 Port ③----Web status LED
④----Web power LED ⑤---WIFI Port ⑥---Power Port

RESET Button:

Located in bottom cover, press it and hold on 10 seconds, the device restores factory

default and reboot.

3 Visit IP Camera from LAN

3.1 LAN Connection

Figure 5 Multiple connected to the router

3.2 Search and set the IP address of IP camera

Run “B1Search_en.exe” in the CD, the setting interface as figure 6

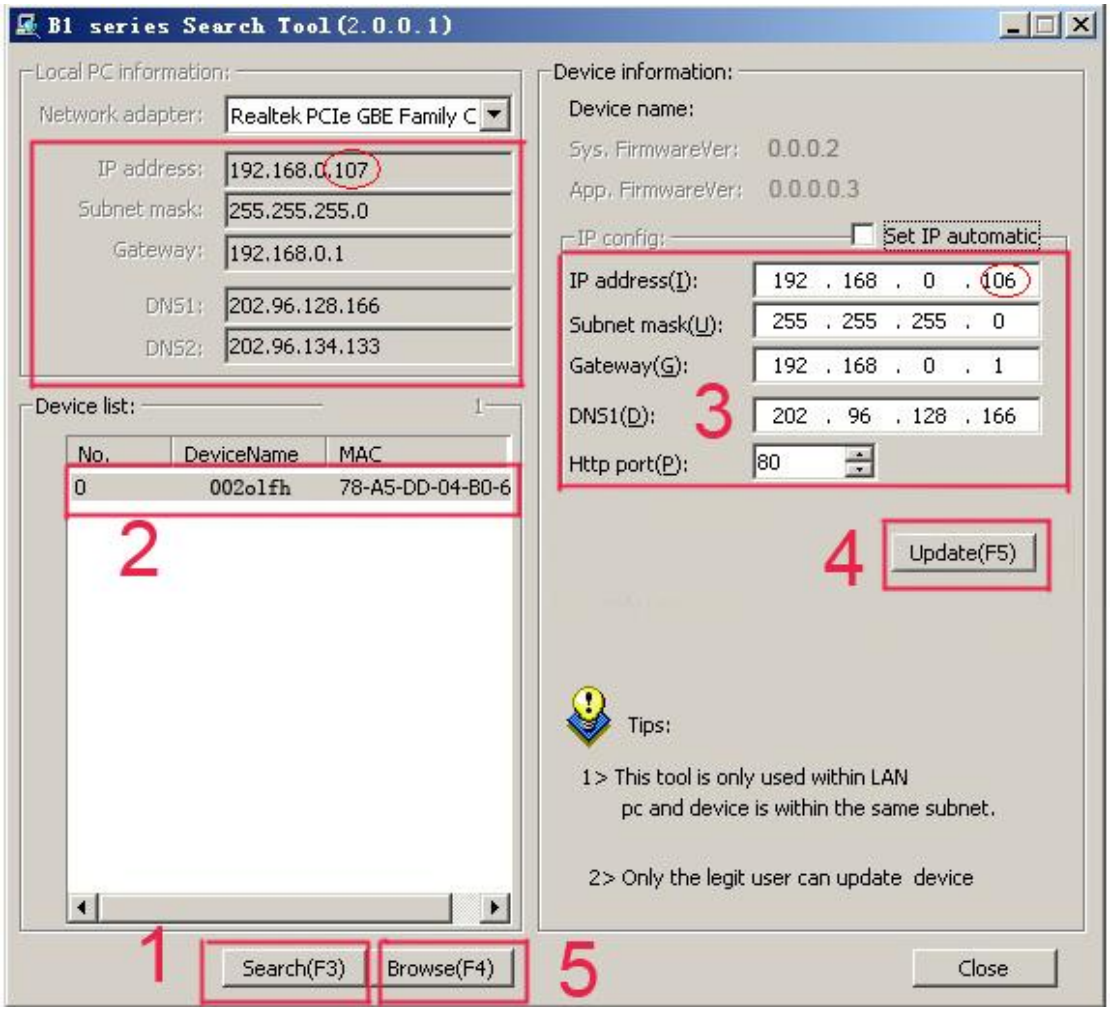

Figure 6 network settings interface diagram

Operation Steps:

1) Click “Search (F3)

2) Choose the device
3) On" IP Config" area, make sure IP address – Subnet Mask – Gateway – DNS, the same as the" Local PC Information" – only the red circle is different.
4) Click "Update(F5)"
5) After successfully update, click "Search (F3)", choose the device and click "Browse (F4)". Then you may view the IP camera, like figure 7.

NOTE:

1) On "Local PC Information" Area, if you PC have more than 1 network Adapter, please chooses the one which you are using now.
2) If you have the firewall software in your PC, when run the B1Search_en.exe, it may pop up a window to say "whether you want to block this program or not", then you should choose not to block.
3) The default IP address is assigned by DHCP and default http port is 80.

Figure 7 Video access

3.3 Visit IP Camera

Click the "Login" to access the video, Suggest use IE browser (which have more function), but need to install video player. When first time use , in figure 8, click on the link "Download and install OCX", will pop-up dialog box shown in Figure 9, Click run, the player will automatically download and install.

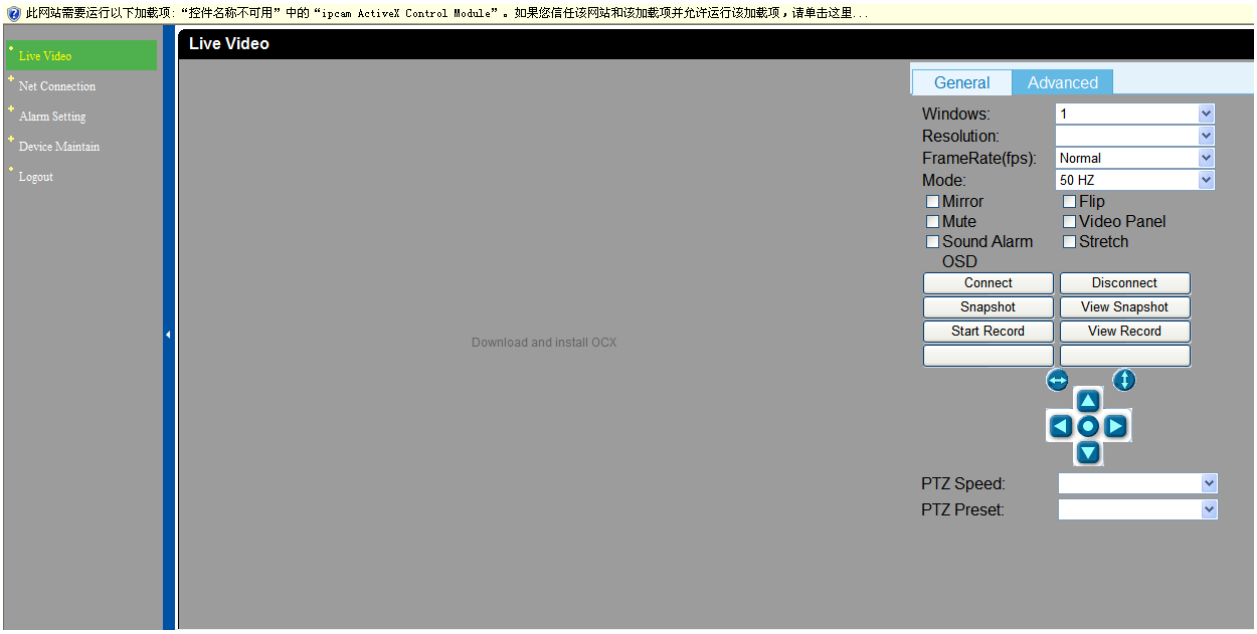

Figure 8　Video viewing screen

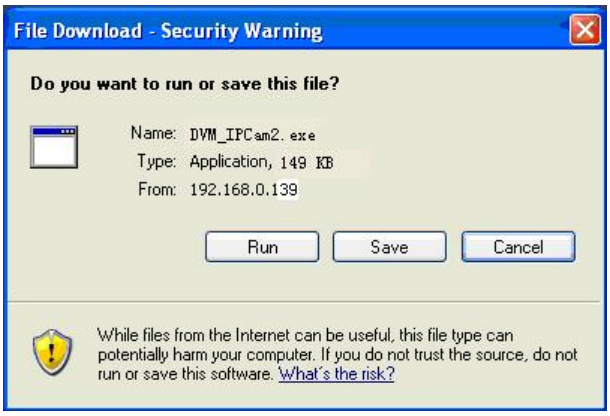
File Download - Security Warning
Do you want to run or save this file?
Name: DVM_IPCam2.exe
Type: Application, 149 KB
From: 192.168.0.139
Run
Save
Cancel
While files from the Internet can be useful, this file type can potentially harm your computer. If you do not trust the source, do not run or save this software. What's the risk?

Figure 9 The player controls download prompt box

After installation Controller, refresh to view.

3.3.1　Video playing area

After install the player controls, click on the figure 10 "Live video ", you can enter the video viewing page：

Figure 10 Video viewing

1) Main menu

Main menu includes different sub menu settings, can be hidden and expansion.

2) Status bar

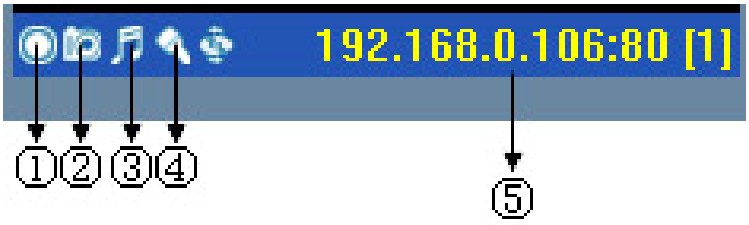

Figure 11 status bar

① Record button: click the button, the screen displays rapidly "start record" in the lower right corner, and record icon becomes red, indicates the device is recording, click it again, stop recording;

② Snapshot button : click the button, the screen displays rapidly " Snap ok " in the lower right corner;

③ Audio play button: click the button, play the audio collecting on your computer, click again, turn off this feature;

④ Audio transmit button: click the button, transmit audio collecting on your computer into camera, and the camera can play audio via external speaker box, click it again, turn off this feature;

⑤ IP address for the current camera.

3) The user can change some parameters according to their own prefer in video control interface.

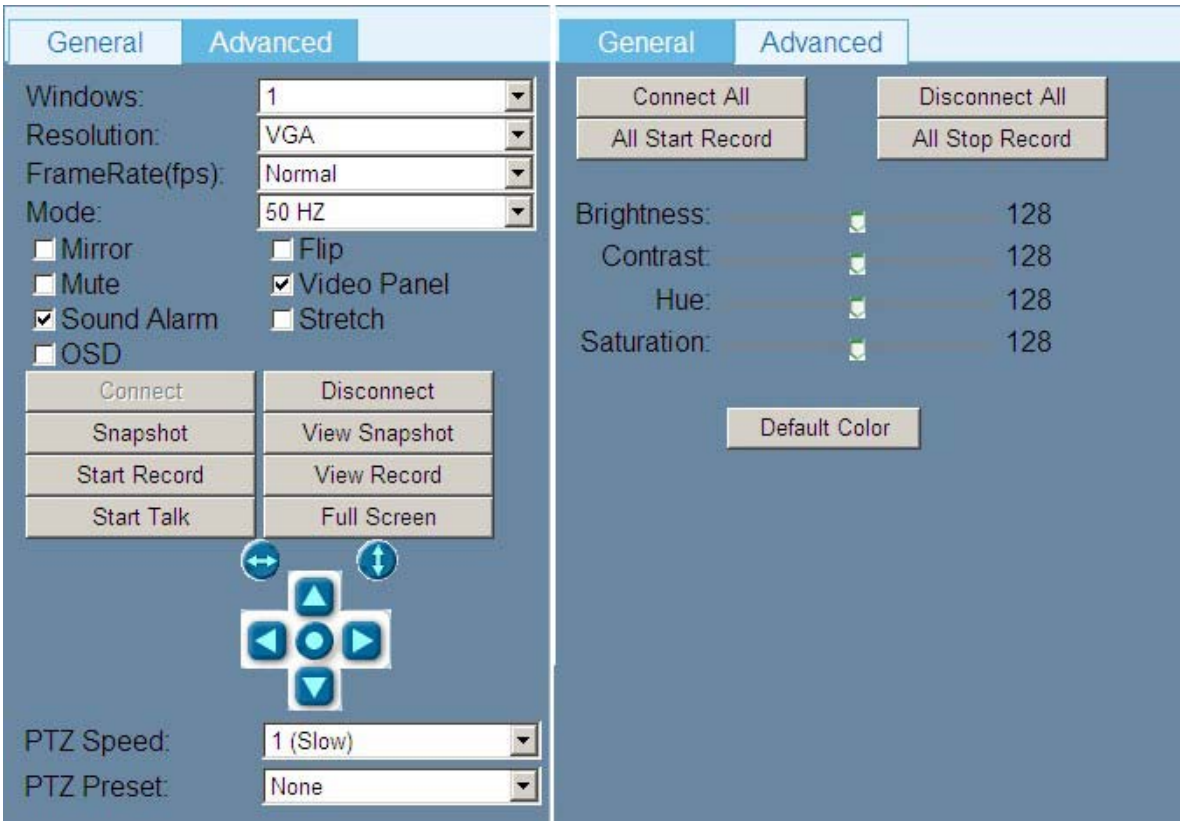

Figure 12 Video control

1） Windows: the user can add multiple external devices, and display in multiple window;
2） Resolution: to adjust resolution in the current screen, generally VGA/QVGA optional;
3） Frame rate: to adjust refresh image times per a second;
4） Mode: to adjust video capture frequency of the camera ,so avoid ripple interference caused by indoor lighting frequency;
5） Mirror：ticked it and the video screen will be flipped horizontally;
6） Flip：ticked it and the video screen will be flipped vertically;
7） Mute：When IPCAM transmitted audio to computer, If you ticked the mute, the computer will not play the audio;
8） Video Panel：to hide and display the status bar located at the bottom of screen;
9） Sound Alarm：ticked the sound alarm, the computer will have voice prompt when the device detects motion detection alarm;
10）Stretch：ticked it and stretch the current video image;
11）OSD：ticked it ,the screen will be display the current date and time in the top right corner, not ticked, and then hide date and time;
12）Connect/Disconnect：connect or disconnect the current network camera;
13）Snapshot/View snapshot：click the snapshot, the device will be take a picture, same as snapshot button in the status bar. click the view snapshot, can view the pictures in the computer by path;

14）Start Record/view record：record same as record button in status bar; to view record, it will be open the record file;

15）Start Talk：click the button, transmit audio collecting on your computer into camera, and the camera can play audio via external speaker box, click it again, turn off this feature;

16）Full Screen：display the current video by full screen;

17）PTZ control button: click these buttons can control the camera move up, down, left and right; click the button can stop the movement of the camera; click two buttons can move the camera a circle horizontal and vertical directions respectively；

18）PTZ Speed：adjust the speed of PTZ control;

19）PTZ Preset：if set PTZ preset, when choosing a preset position, the console will run to the preset position, details please see the subsequent chapters;

20）Advanced settings: can operate multiple images simultaneously. And can adjust brightness, contrast, chromaticity and saturation of the image;

4 Visit IP Camera from WAN

4.1 Wan connection

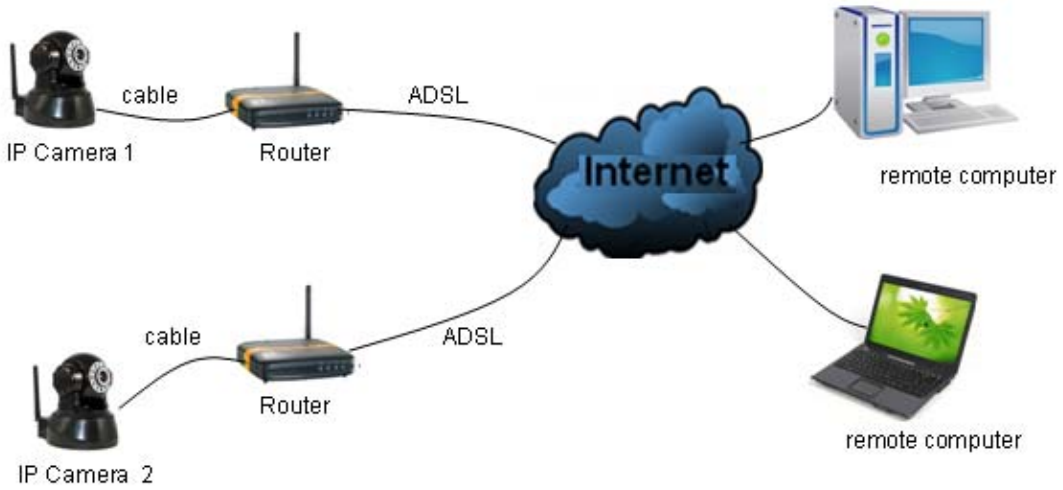

Figure 13

4.2 Port forwarding

If visit IP Camera from WAN, you must do port forwarding on the router. Take Netgear router for example:

1) After login the interface of the router，choose “Port Forwarding”;
2) Choose “Add custom Service”;
3) Input IP camera port;
4) Input IP camera IP address，click “Apply”.（the http port and ip address should be the

same as figure 4 which set by you own）.

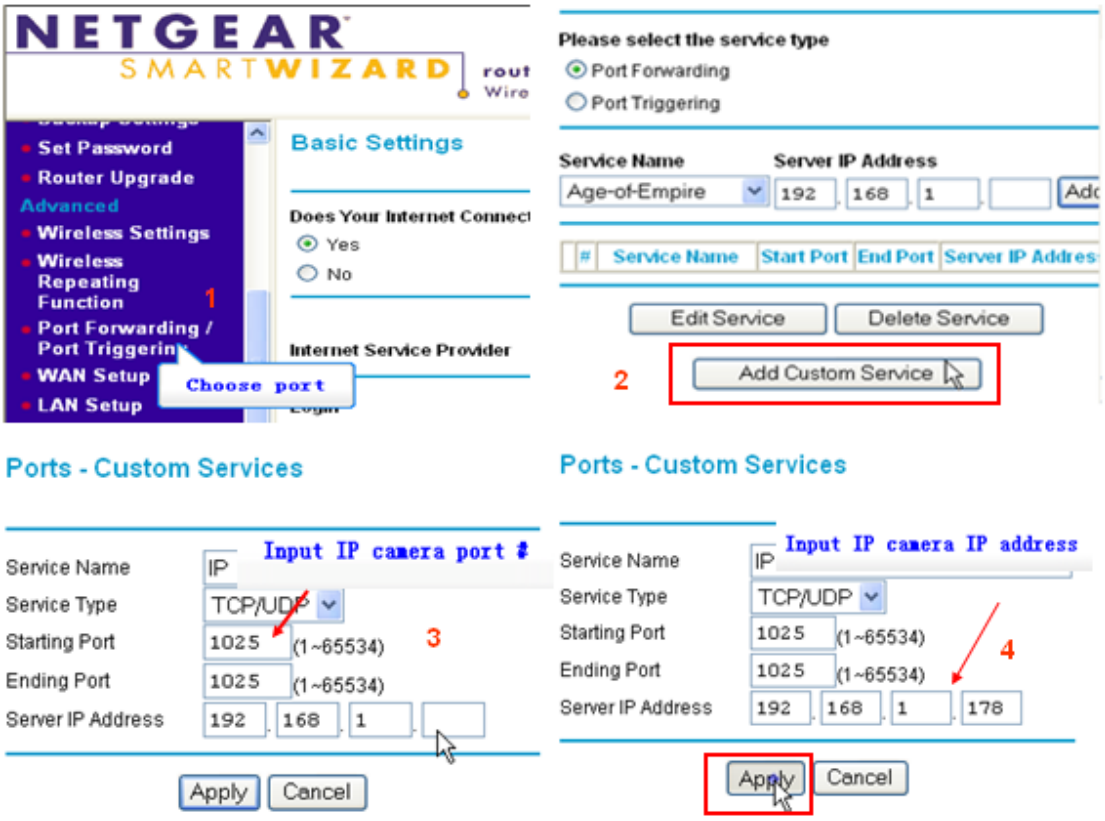

Figure 14 Router settings interface

After the port-forwarding is done, you could view the IP Camera from WAN using the WAN IP now.

Note: Different router has different settings for port-forwarding; please kindly follow your router guide to do the port-forwarding.

4.3 DDNS

You could also use the manufacturer DDNS to view the device as long as your port-forwarding succeeds.

4.3.1 Manufacturer's DDNS

Device manufacturer has provided a free DDNS. User can find it from bottom of the camera or below menu, like figure 15.

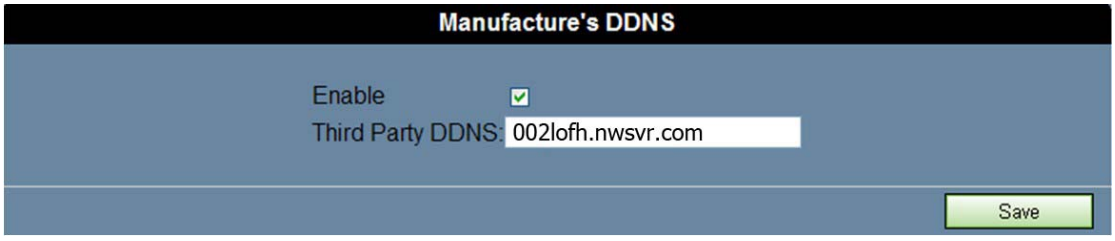

Figure 15 Manufacturer's DDNS

Note: Please make sure, you already do the port forwarding succeed when you plan to

use manufacturer DDNS.

4.3.2 Third Party DDNS

User can also use third part DDNS, such as www.3322.org User must apply a free domain name from this website and fill the info into the below blanks (Figure 16) and save the settings. Then the domain name can be used.

Note: Using the third party domain name, if the http port is not 80, the port number should be adding to the domain name with colon. Example: ***http://btest.dyndns.biz:81***. ***While manufacturer DDNS is no need to add PORT.***

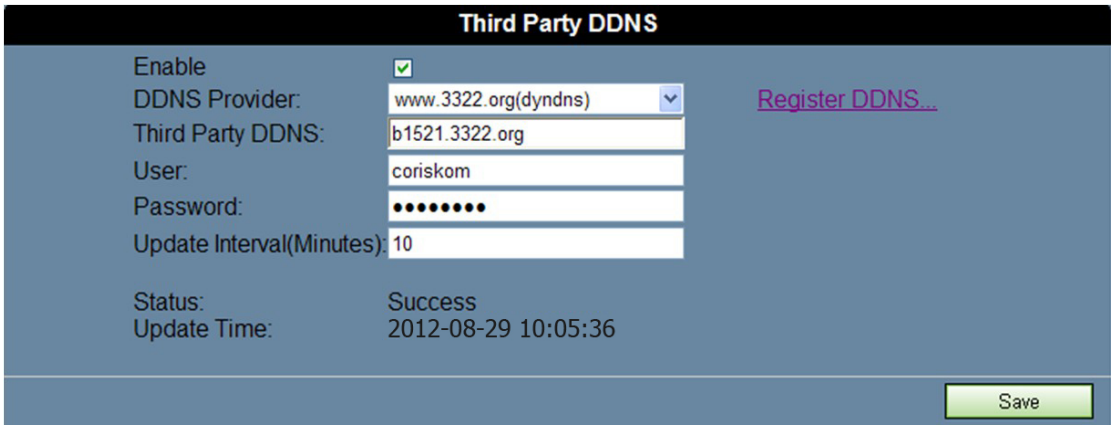

Figure 16 Third party DDNS configuration example

5 Other Settings

In Figure 10, click the menus at the left side, can configure variety of settings.

5.1 Network Setting

5.1.1 Basic Network Setting

The user can also enter the Basic Network Settings to set the IP address except using the search software. See below Figure 17.

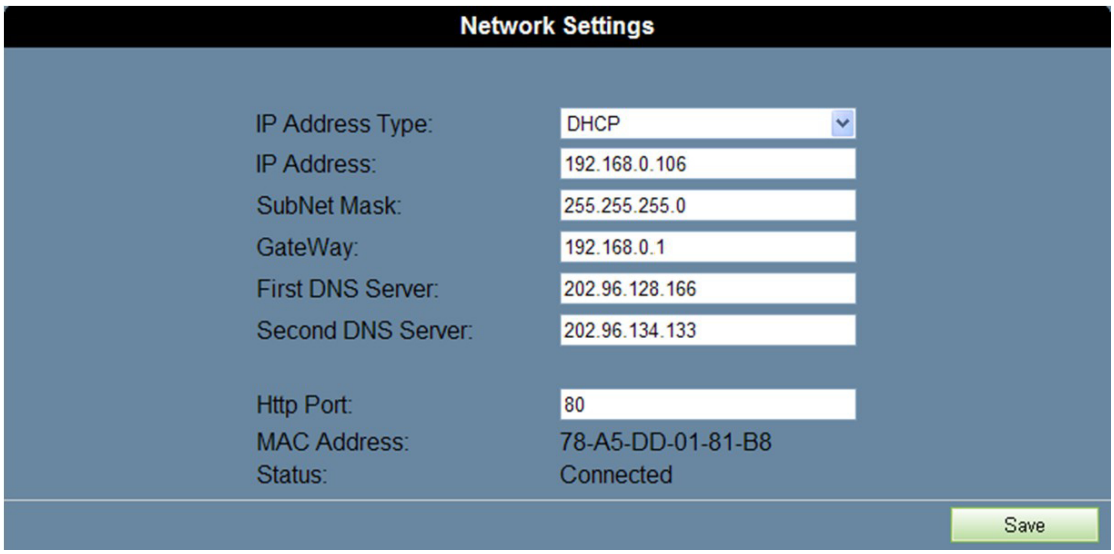

Figure 17 Basic network

5.1.2 WIFI Setting

WIFI setting page, as shown in Figure 18, the wireless network list will be listed in search of wireless networks. Select one of the network, and then check "Enable" in the list below the relevant parameters of the selected wireless network will be filled out automatically, enter the key then click Save to complete the wireless network setting.

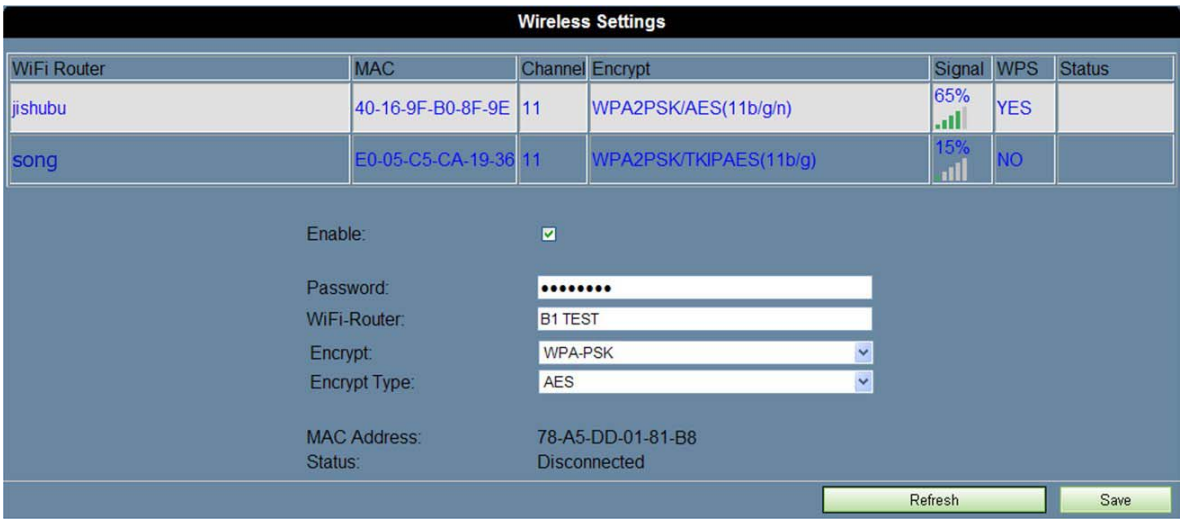

Figure 18 WIFI settings

Note1: When the device is connected both WIFI and wired, it will firstly connect to the wired network, if it can't connect to it, then it will change to connect to the wifi. The IP address and port is the same, either wireless or wired network.

Note2: Before you do the configuration of wireless as shown above; please make sure the device is connected to the network via network cable. After settings succeed, please unplug the cable and reboot the device, and then wireless function takes effect.

5.1.3 UPnP Setting

If you enable UPNP, once the IP camera is connected into the LAN, it will communicate with the router in the LAN to do the port-forwarding automatically.

Below Figure 19, tick “Using UPNP to Map Port” and the setting are completed. It will show the setting is successful or not.

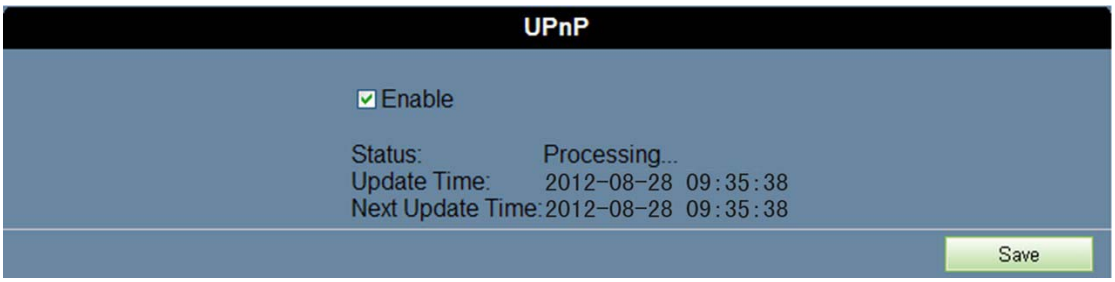

Figure 19 UPnP settings

Before using UPNP function, please make sure the router’s UPNP function has been triggered. Not all the routers support UPNP perfectly. Please test if the router works well with the equipment, if not, we would suggest you to disable this function and do the port-forwarding manually.

5.1.4 DDNS Setting

Please refer to the content in 4.3.

5.1.5 MSN Setting

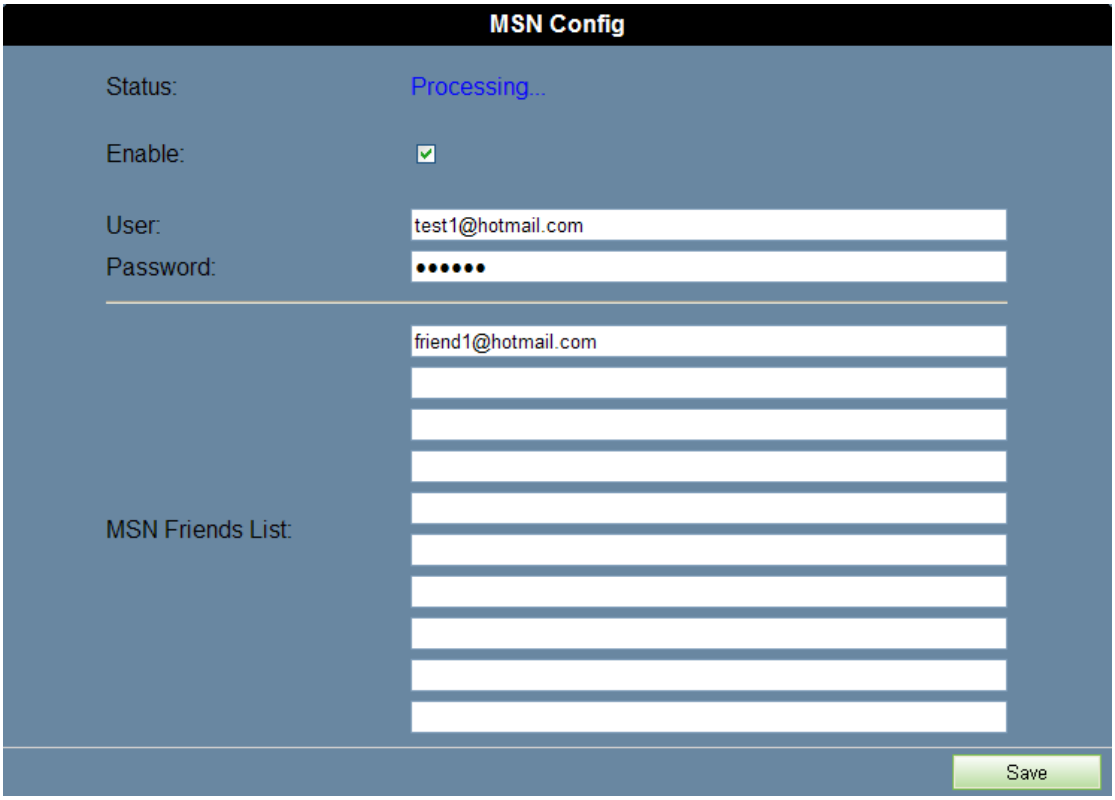

Figure 20 MSN settings

User needs to apply for a MSN account for this device first, for example: test1@hotmail.com. Please put this MSN account and its password as above Figure 15. Then put your MSN account, for example: friend1@hotmail.com, into the 'MSN Friends List. Then on your friend1@hotmail.com MSN list, you can see test1@hotmail.com is online. You just send "url?" to test1@hotmail.com and you will get the WAN ip address of this ip camera. But please make sure test1@hotmail.com and friend1@hotmail.com should be MSN friends before you do the settings.

5.2 Alarm Settings

5.2.1 Motion Detect

1） Motion Detect

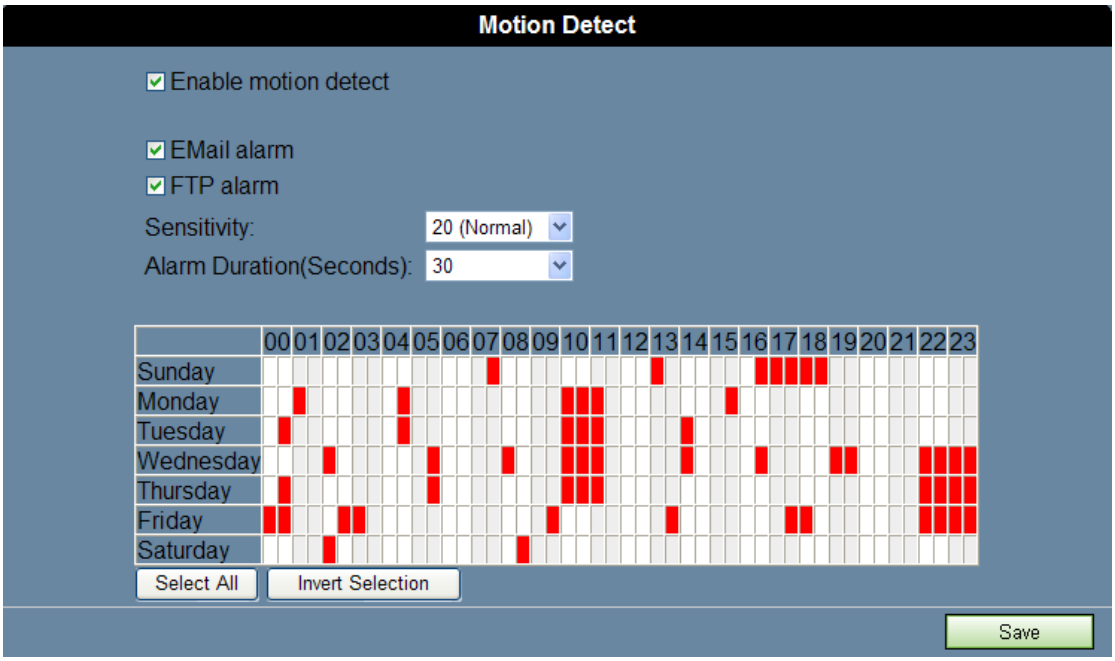

Figure 21 Operation detection set sample

User can select the motion detection. If there is any motion, it will detect the motion and trigger the alarm.

Sensitivity：in the motion detect sensibility, the larger the figure, the more sensitive.

Alarm Duration：After trigger the alarm, external alarm device sustains alarm duration time;

2） Scheduler

Device will trigger alarm in scheduled time. User can set schedule time to be "Select All". Before you set "Schedule", please go to Date and Time settings to set the correct time for the item, as shown in figure 21.

5.2.2 Mail Service Setting

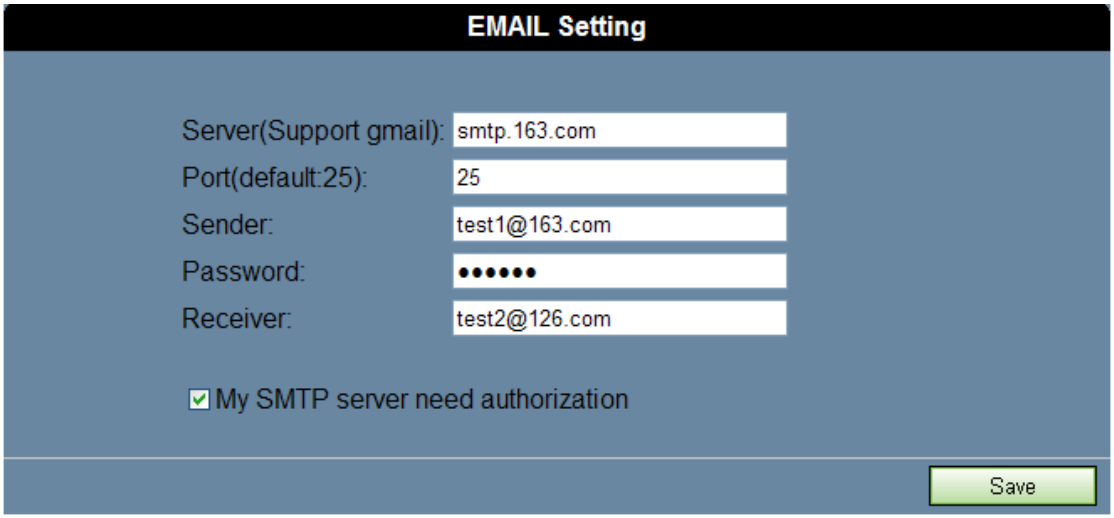

Figure 22 example of mail settings

The device will send alarm email to you. You only need to fill out the blanks with your email address as shown in Figure 22. After the setting, please click save and test to check if it works properly.

5.2.3 FTP Service Setting

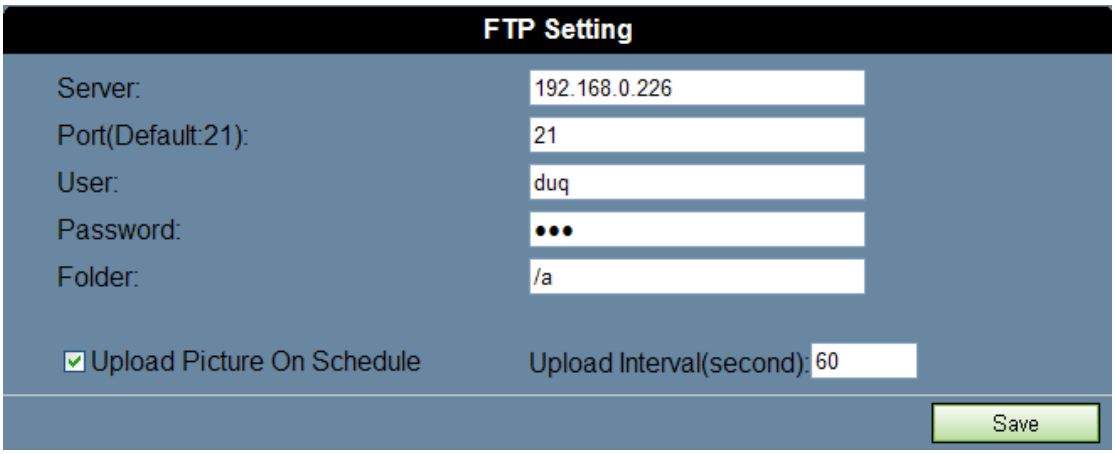

Figure 23 FTP set sample

When alarming, device will snap and send the image to FTP server, please make sure the FTP setting is correct. Above Figure 23 of FTP setting for your reference, the setting is finished.

After correct setting FTP server, you can use “upload Picture On Schedule” function. Even no alarm, device can also send the snap image to FTP periodically.

In order to use FTP function, user should apply username and password on the FTP server first. And please apply some storage and the authority to write and create sub-category into it.

5.3 Advanced

5.3.1 Device Information

Users can view the current device software version, web version, running time, equipment time.

Figure 24 Device Information

5.3.2 Device name

The user can name the device by himself according to needs。

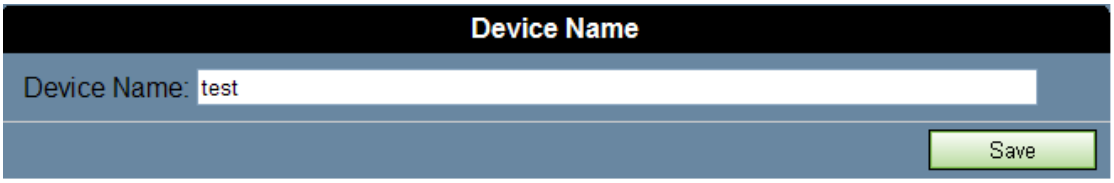

Figure 25 Device name

5.3.3 User account

Users need administrative privileges to add three kinds of users (administrator, operator, and guest).

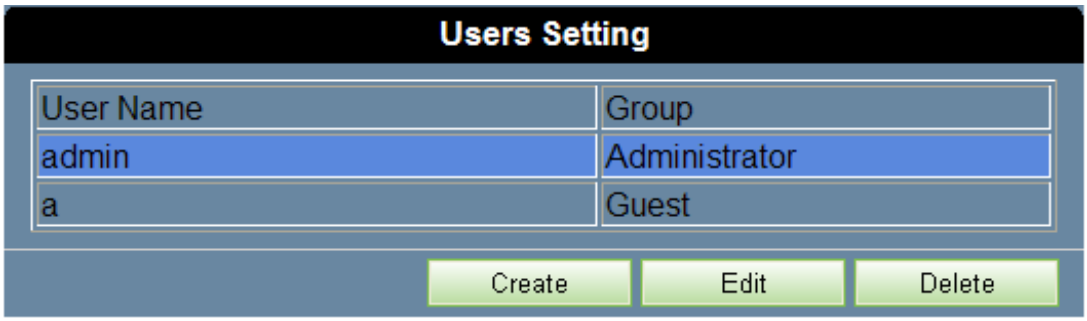

Figure 26 User accout

Click "Create", the following dialog box pops up, enter user information.

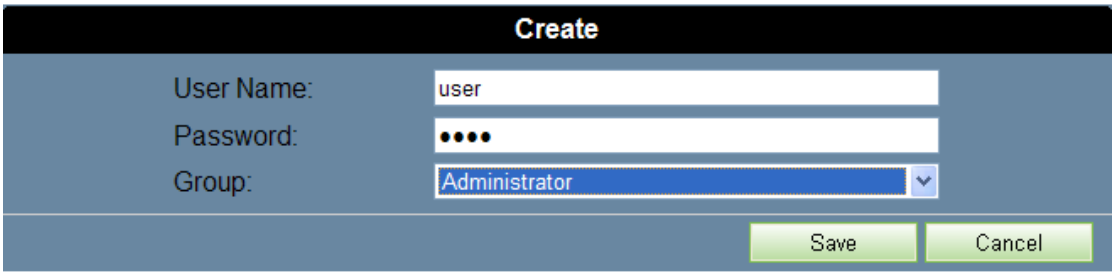

Figure 27 Create user

By default, the administrator's user name is admin, password: 123456.

5.3.4 Change Password

The user can change their password.

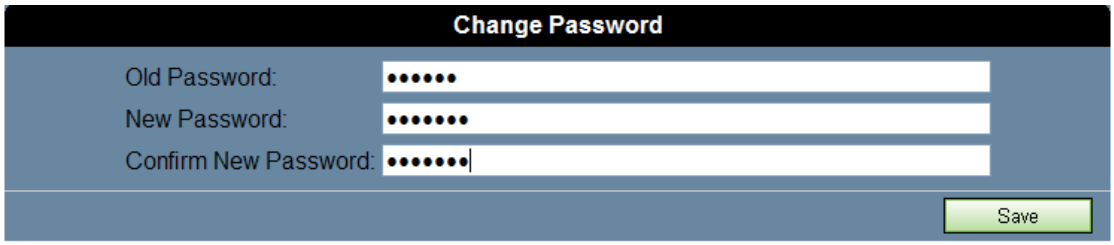

Figure 28 change password

5.3.5 Date and Time

If the device is connected to the Internet, you enable the NTP server to correct the time and select the right time zone. Or you should use the PC's time to correct its time.

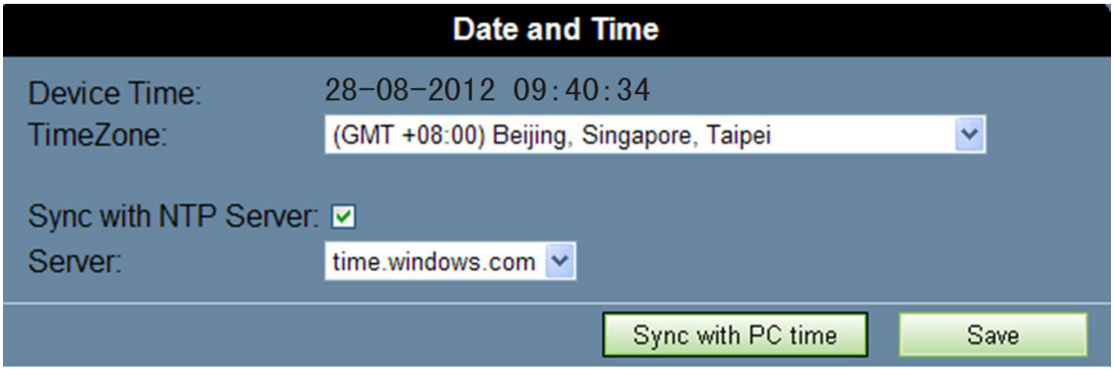

Figure 29 set time and date

5.3.6 Outer Device

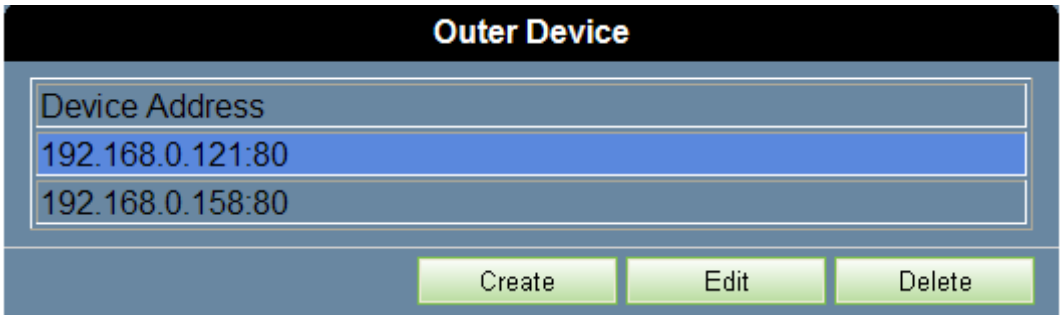

Figure 30 outer device settings

Figure 30, the user can add up to 100 road equipment, multi-channel video equipment through the pages displayed simultaneously. Click the New button in the new dialog box which pops up, enter the device information, as shown in Figure 31, click Save to add the device can be realized. Note: The user can add the device address is the IP address or a third party DDNS.

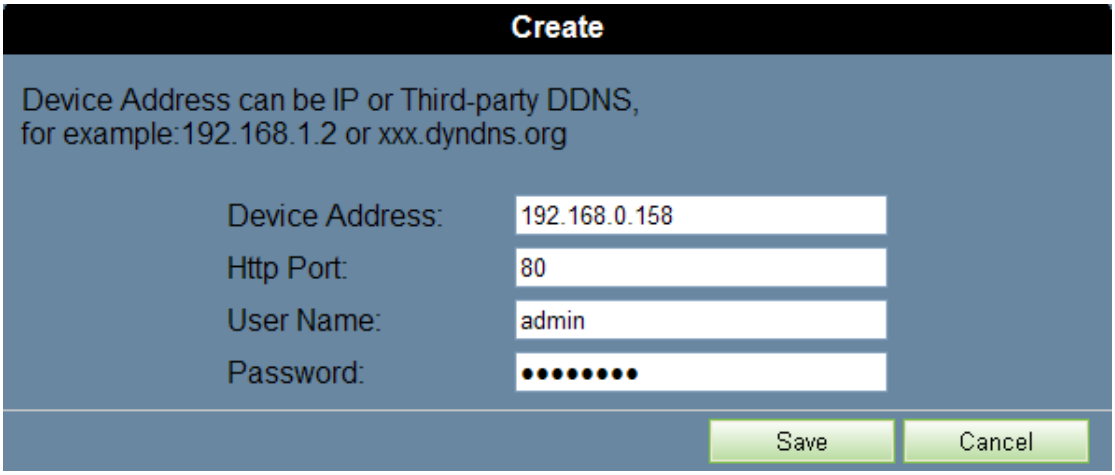

Figure 31 create outer device

After adding the device, you can make change. Simply click on the "Edit" button to make change as the figure below, the device can also be deleted.

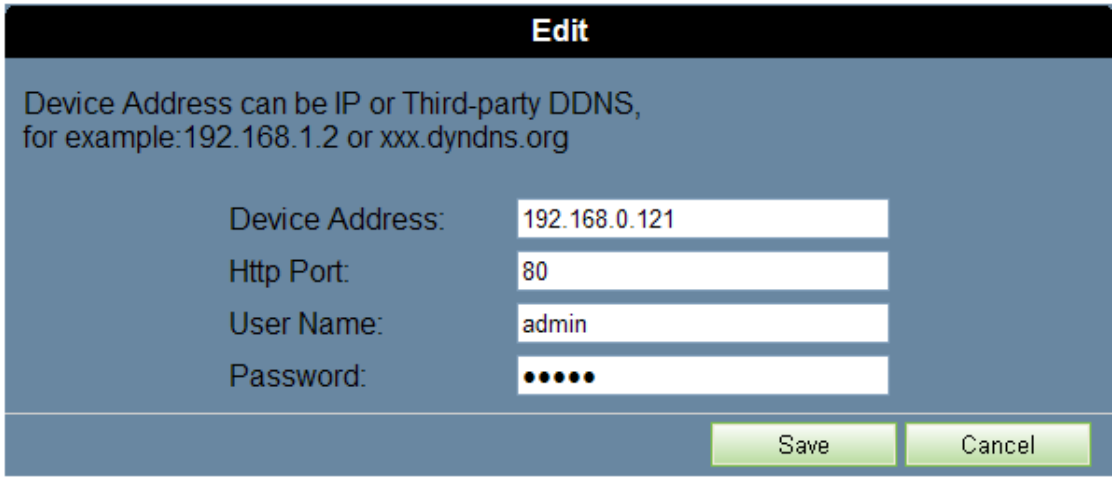

Figure 32 edit outer device

5.3.7 PTZ Setting

You can choose vertical or horizontal；you can also set the Preset, PTZ speed and the rounds you want it to cruise horizontally or vertically.

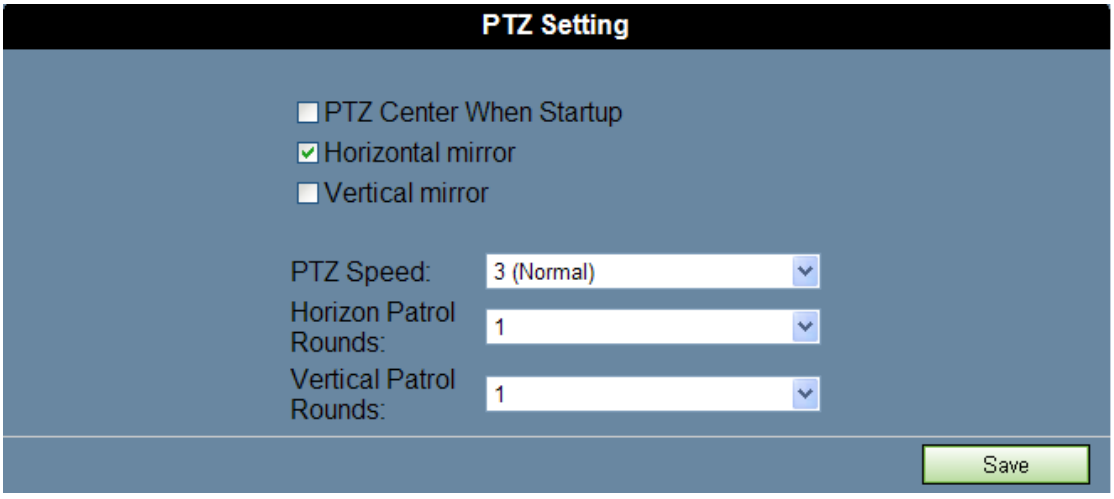

Figure 33 PTZ setting

5.3.8 PTZ Preset

It supports 16 Presets. Please click "re-positioning of pre-position" first, then cruise it to the position you want, and then name this position, finally click “save”.

Figure 34 preset settings

5.3.9 Local Setting

In this interface, users can do the settings for Taking Pictures, recorded video path, and MJPEG frame rate, to enable alarm recording and alarm time, etc.

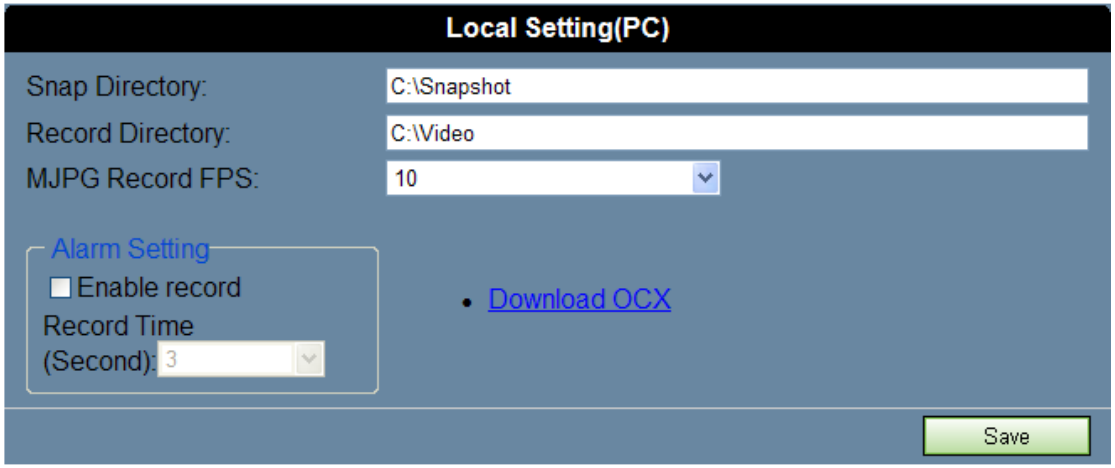

Figure 35 local setting

5.3.10 Update Software

The device runs 2 kinds of programmer, one is Update software; the other is updating WebPages. They could be upgraded separately.

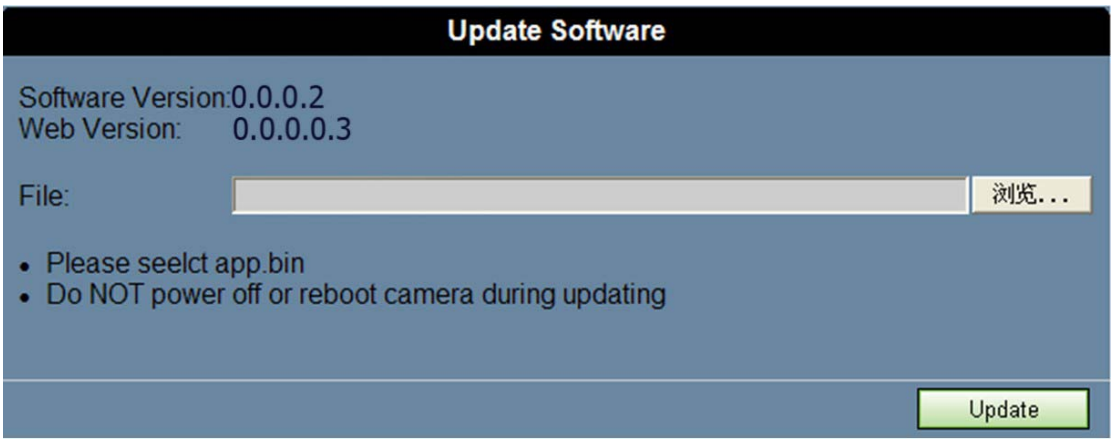

Figure 36 update software

5.3.11 Update WebPages

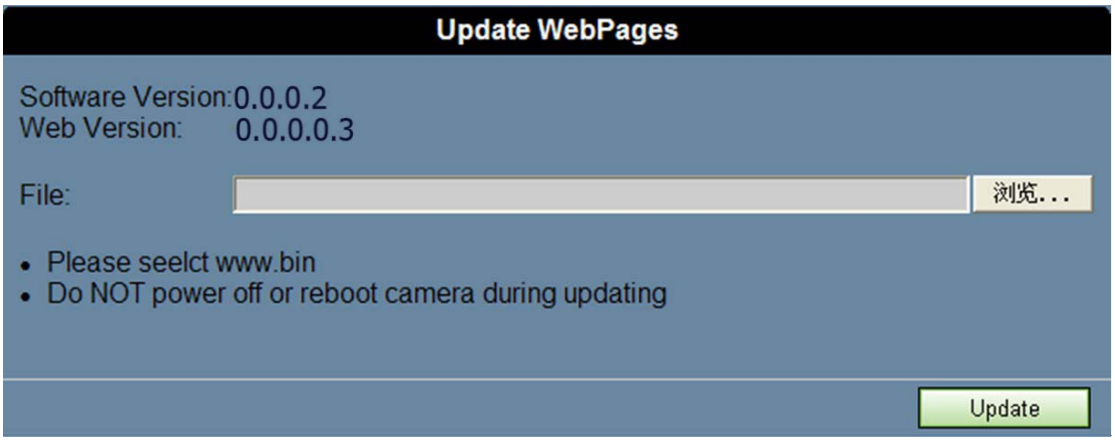

Figure 37 update webpage

5.3.12 Reboot Device

Click Restart Now, the pop-up dialog box asks you to confirm that you want to do this, confirmed, restart the device, according to the user's own needs automatically reboot time in minutes hours based (choices are 1,2,3, 4,5 minutes 10,20,30,40,50 minutes, 1 ~ 24 hours).

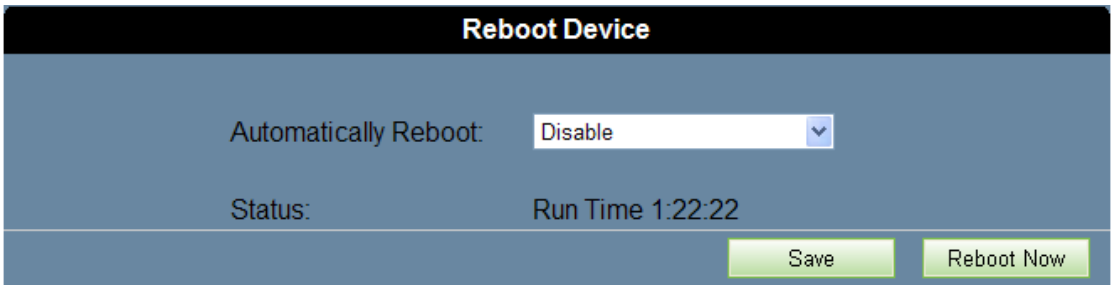

Figure 38 reboot device

5.3.13 Device Setting

Users according to their needs which users can download the device configuration file, you can also upload a configuration file, click the "Restore Factory Defaults" to restore the factory default values can be immediately.

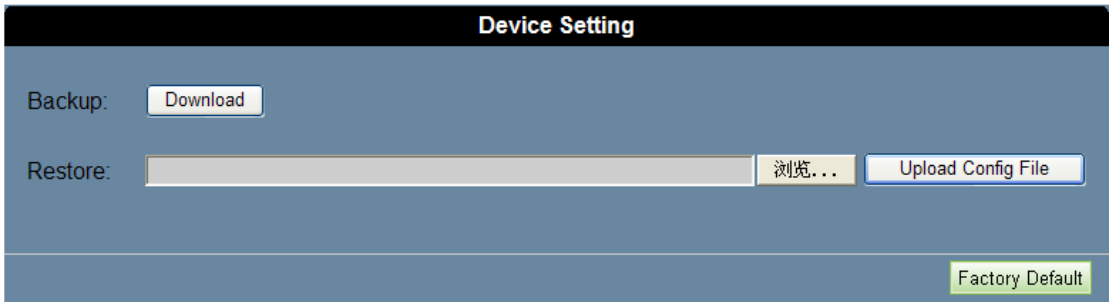

Figure 39 device setting

5.3.14 Log

After enter the log interface, you could view who and when the device is visited.

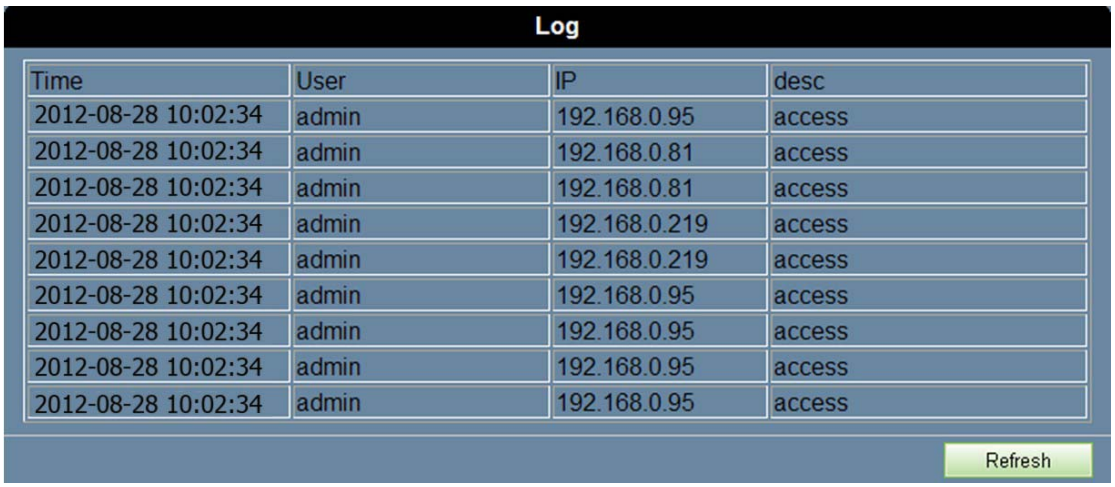

Figure 40 log view

Logout：logout ip camera，and then return login interface.

6 IPCMonitor Introduction

IPCMonitor is a free software offered by factory, several devices on LAN and WAN can be browsed at the same time. The software also supports snap, video record, alarm and so on. The below Figure 41 is the interface.

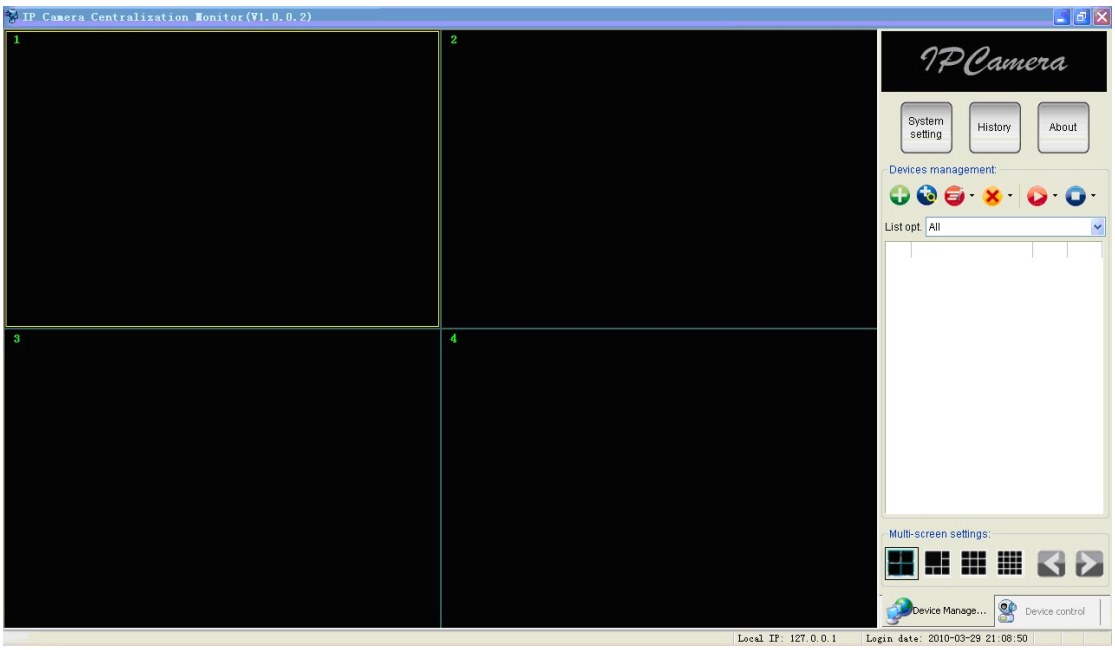

Figure 41 ipcmonitor interface

For more information, pls. refer to the <<IPCMonitor User Manual>> in CD.

7 FAQ

1. Unmatched power adapter will damage the equipment or power adapter

When plug in the power adapter, please check carefully the voltage, it should be 5V adapter for this equipment.

2. Slowly browse speed

This equipment adopts MJEPG compression format, it needs large network bandwidth, the narrow bandwidth will affect the browse speed. The typical bandwidth uses situation as below:

640x480@10fps : 4.0 Megabits ～ 5.0 Megabits

320x240@30fps : 1.2 Megabits ～ 1.6 Megabits

3. **Color difference**

The default is infrared lens, when visit outdoor or strong infrared light scenes, there are color differences, the color is not accordance to the real scenes. User can change it to color lens to solve this problem, but color lens can only use under the daylight situation.

4. Can't find equipment via search software after connect to LAN

Make sure the equipment and PC is in the same LAN; if install firewall software, please close it and try again.

5. Can find equipment via search software, but can't visit

If the IP address of IP camera and PC is not in the same Network Segment, you should change them on the same Network Segment before visit. Network Segment is the first three number of IP address. If the IP address of PC is 192.168.0.100, so it can only visit the equipment which IP address is between 192.168.0.1~192.168.0.255.

6. Can visit via public IP address, but can't visit via manufacturer's domain name

Make sure the DNS setting is same as your PC, as below Figure 42, in the search tool, the DNS 1 and DNS 2 on both side should be same.

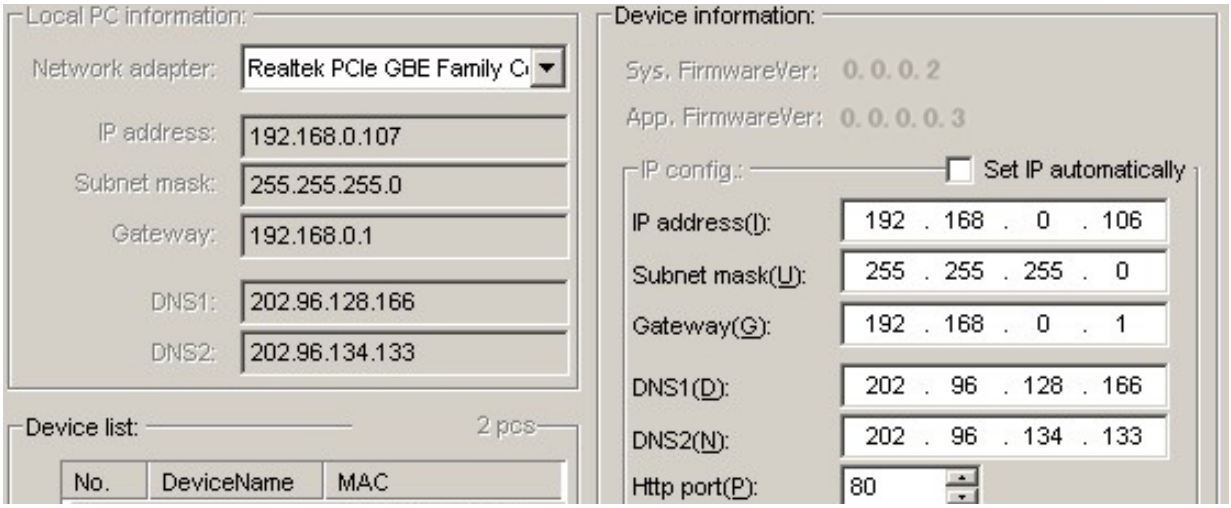

Figure 42 DNS Setup